REMARKS

The specification

The specification has been amended to change the title to "Peptide antagonists of Prostaglandin F2α receptor", to include a claim to priority to application No. 09/154,627 (now abandoned) and to amend the description of Fig. 2A, at page 8 of the disclosure to replace the term "PCP-8" by the term "saline" in accordance with the subject-matter illustrated in Fig. 2A.

Applicants respectfully submit that these amendments do not constitute new matter and respectfully request entry thereof.

The claims

Claims 1-9 are currently pending. According to the Office Action mailed November 29, 2002, claims 1-5, 8 and 9 are currently under examination insofar as they read on SEQ ID NO:1 and 4-11.

Claim 1 has been amended herein to be an independent claim. Claim 1 has also been amended to replace the phrase "G protein-coupled receptor antagonist of claim 3 which comprises amino acid sequence of the FP [receptor]" with the phrase "An antagonist of prostaglandin F2α receptor comprising an amino acid sequence". Claim 1 has also been amended to delete the phrase "; and functional peptide analogues thereof".

Claims 1 and 2 have been amended herein to delete reference to non-elected SEQ ID NO:2, as requested by the Examiner. Applicants note that the Examiner did not request that

Applicants delete SEQ ID NO:3 from the claims, however, Applicants have done so herein since the Examiner considers it to be directed to a non-elected invention.

Claims 3 and 4 have been amended to replace the term "a G-Protein coupled receptor" with the word "the".

Claim 5 has been amended to delete the phrase "G protein coupled receptor an".

Applicants respectfully submit that these amendments do not constitute new matter and respectfully request entry thereof.

1. Formal Matters

In the Office Action, the Examiner indicated the following:

> A. The Information Disclosure Statement, filed 7/18/01, has been entered into the record.
>
> B. Claims 1-9 were pending in the application and were subject to restriction in Paper No. 9, dated 8/19/02. In Paper No. 10, filed 9/19/02, Applicants elected Group I, claims 1-3, 5 and 8 as drawn to SEQ ID NO:1. Applicants argue that claims 3 and 8 as well as 4 and 9 are related by the fact that the claimed antagonists inhibit uterine contraction, which is the inventive concept. Applicants also argue that searching all 12 SEQ ID Nos would not be a serious burden on the Examiner. Upon consideration, the Examiner has agreed to combine Groups I and II and to examine claims 1-5, 8 and 9 and to search all SEQ ID Nos which have the same basic structure as SEQ ID NO:1 (i.e. only differ by a single residue). Therefore, claims 1-5, 8 and 9 will be examined insofar as they read on SEQ

ID NO:1 and 4-11. This restriction is deemed proper by the Examiner and made FINAL.

2. Information Disclosure Statement

The Examiner indicated that the International Search Report citation has been lined through since this report is not proper subject matter for a Form PTO-1449.

3. Specification

In the Office Action, the Examiner made the following objections to the specification:

> A. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title recites that the claimed invention is drawn toward agonists. However, the claims are drawn only to antagonists.
>
> B. The specification is objected to since no priority information, including reference to application 09/154,627 (now abandoned) is recited in the first line of the specification. Priority to 09.154,627 is recited in the Oath/Declaration.
>
> C. Figure 2a is objected to since there is no reference to the term "PCP-8." In other words, no data is represented by the term "PCP-8," whereas the Brief Description of Figures references "PCP-8."

In response, the specification has been amended to change the title to "Peptide antagonists of Prostaglandin F2α receptor", to include a claim to priority to application No. 09/154,627 (now abandoned), and to amend the description of Fig. 2A, at page 8 of the

disclosure to replace the term "PCP-8" by the term "saline" in accordance with the subject-matter illustrated in Fig. 2A.

Applicants respectfully submit that these objections have been overcome and respectfully request reconsideration and withdrawal of the objection to the specification on these grounds.

4. Claim Objections

In the Office Action, the Examiner made the following objections to the claims:

> A. Claim 1 is objected to since it recites "a G protein-coupled receptor antagonist of claim 3." It is believed that claim 1 should be an independent claim, especially given that claim 3, itself, depends from claim 1.
>
> B. Claims 1-5, 8 and 9 are objected to since they recite, or depend from claims which recite, non-elected SEQ ID NO:2. This non-elected subject matter should be removed from the claims.
>
> C. The syntax of claim 5 can be improved by amending the phrase "a G protein-coupled receptor an antagonist."

In response, Claim 1 has been amended herein to be in independent form and non-elected SEQ ID NO:2 was removed from the claims 1 and 2 as requested by the Examiner. In addition, non-elected SEQ ID NO:3 was removed from the claim 1. Applicants reserve the right to file a divisional or other related application to pursue the subject-matter of SEQ ID NO:2 and SEQ ID NO:3. Claim 5 has been amended to delete the phrase "G protein coupled receptor an".

Applicants respectfully submit that these objections have been overcome and respectfully request reconsideration and withdrawal of the objection to the claims on these grounds.

6. Claim Rejections - 35 USC § 101

The Examiner rejected claims 8 and 9 under 35 U.S.C. 101 because the claims recite "the use of," which is non-statutory language. The examiner suggested that the claims should be amended to recite, for example, "the method of . . ."

In response, Applicants have deleted claims 8 and 9.

Applicants respectfully submit that this rejection has been overcome and respectfully request reconsideration and withdrawal of the rejection to the claims on these grounds.

7. Double Patenting

Claims 1-5, 8 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim l, 2, 4 and 5 of U.S. Patent No. 6,300,312. The Examiner states that, although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the patent is a genus claim. It recites "a prostaglandin receptor antagonist which binds to an intracellular molecular interface formed by said prostaglandin receptor and a G-protein, wherein said antagonist is a peptide fragment of said prostaglandin receptor obtained from the third or fourth intracellular domain of the prostaglandin receptor." The Examiner states that the peptides of claim 1 of the application are species of the

peptides claimed in the patent and, similarly, the methods of using the peptides of the application use species from the genus claimed in the patent.

Applicants respectfully submit that the amendments to Claim 1 overcome this rejection. The pending claims as amended are limited to the peptides of SEQ ID NO:1, 4-11 specific to "prostaglandin F2α", which are not described nor suggested in the U.S. Patent No. 6,300,312. If the Examiner maintains the rejection, Applicants will consider preparing and filing a Terminal Disclaimer.

8. Claim Rejections - 35 USC § 112, first paragraph - scope of enablement

Claims 1, 3-5, 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, on the grounds that the specification, while being enabling for the peptides of SEQ ID NO:1 and 4-11, does not reasonably provide enablement for proteins which are "functional peptide analogs" of these SEQ ID NOs. It is the Examiner's position that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

In response, Applicants note that claim 1 has been amended to delete the phrase "and functional peptide analogues thereof"; claims 3-5 are dependent on claim 1; and claims 8 and 9 have been canceled herein.

Applicants respectfully submit that this rejection has been overcome and respectfully request reconsideration and withdrawal of the rejection to the claims on this ground.

9. Claim Rejections - 35 USC § 112, second paragraph

Claims 1, 3-5, 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that, in claim 1, the term "G protein-coupled receptor antagonist" is confusing since it is not clear if this is referring to an antagonist to a G protein-coupled receptor, or to a full-length G protein-coupled receptor which is, itself, an antagonist. The Examiner states that, as written, the claim reads on the full-length prostaglandin FP receptor, which comprises the claimed SEQ ID NOs. The Examiner further states that this receptor can be considered an antagonist since it could be used to bind to antibody specific for said receptor, thereby acting as an antagonist to the antibody. The Examiner states that, if this is the case, then an art rejection under 35 USC 102 will be made over the full-length FP receptor in the subsequent Office Action.

Applicants respectfully traverse the rejection. Applicants note that Claim 1 has been amended herein to be directed to "An antagonist of prostaglandin F2α receptor comprising an amino acid sequence" selected from the group of indicated peptides; claims 3-5 are dependent on claim 1; and claims 8 and 9 have been deleted herein.

Applicants respectfully submit that this rejection has been overcome and respectfully request reconsideration and withdrawal of the rejection to the claims on this ground.

***10. Claim Rejections - 35 USC* § 102**

Claims 1-5, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Chemtob et al. (US Patent No. 6,300,312). The Examiner states that the claims of the present invention recite G protein-coupled receptor antagonists of SEQ ID NO:1, 4-11, or functional derivatives thereof as well as methods of preventing premature delivery of a fetus. The Examiner further states that Claim 1 of the patent recites "a prostaglandin receptor antagonist which binds to an intracellular molecular interface formed by said prostaglandin receptor and a G-protein, wherein said antagonist is a peptide fragment of said prostaglandin receptor obtained from the third or fourth intracellular domain of the prostaglandin receptor" and that the claims of the patent also recite methods of using the peptides of the application use species from the genus claimed in the patent.

Applicants respectfully traverse the rejection. Applicants note that Claim 1 has been amended herein to delete the phrase "G protein-coupled receptor antagonist of claim 3 which comprises amino acid sequence of the FP [receptor]" and replace it with the phrase "An antagonist of prostaglandin F2α receptor comprising an amino acid sequence" selected from the group of indicated peptides; claims 2-5 are dependent on claim 1; and claims 8 and 9 have been canceled. Thus, the pending claims as amended are limited to the peptides of SEQ ID NO:1, 4-11 specific to "prostaglandin F2α", which are not described nor suggested in the U.S. Patent No. 6,300,312. Therefore, the pending claims as amended are not anticipated by Chemtob et al.

Applicants respectfully submit that this rejection has been overcome and respectfully request reconsideration and withdrawal of the rejection to the claims on this ground.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the instant application is in condition for allowance. Entry of the amendment and an action passing this case to issue is therefore respectfully requested. If a telephone interview would advance the prosecution of the subject application, Applicants' undersigned attorney invites the Examiner to telephone at the number provided below.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

By: _____
Mary J. Morry
Registration No. 34,398

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MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, New York 10154
(212) 758-4800 Telephone
(212) 751-6849 Facsimile